

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of treating bacteremia comprising the step of administering orally to a subject an effective amount of a lactoferrin composition comprising at least 1% to at least 50% w/w of an N-terminal lactoferrin variant to provide an improvement in the bacteremia of said subject, wherein the improvement is selected from the group consisting of attenuating sepsis, attenuating septic shock, attenuating organ failure, decreasing morbidity and decreasing mortality, wherein the N-terminal lactoferrin variant has a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and wherein the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin.

Claims 2-6 (Canceled)

7. (Original) The method of claim 1, wherein said lactoferrin composition is dispersed in a pharmaceutically acceptable carrier.

8. (Previously presented) The method of claim 1, wherein said lactoferrin composition further comprises mammalian lactoferrin.

9. (Previously presented) The method of claim 8, wherein said lactoferrin composition further comprises human or bovine lactoferrin.

10. (Previously presented) The method of claim 1, wherein said lactoferrin composition further comprises recombinant lactoferrin.

Claims 11-13 (Canceled)

14. (Original) The method of claim 1 further comprising administering an antacid in conjunction with said lactoferrin composition.

15. (Previously presented) The method of claim 1, wherein the lactoferrin composition further comprises lactoferrin and wherein the amount of lactoferrin plus N-terminal lactoferrin variant in the lactoferrin composition that is administered is about 1 mg to about 100 g per day.

16. (Previously presented) The method of claim 1, wherein the lactoferrin composition further comprises lactoferrin and wherein the amount of lactoferrin plus N-terminal lactoferrin variant in the lactoferrin composition that is administered is about 10 mg to about 10 g per day.

17. (Original) The method of claim 1, wherein said composition that is administered is a liquid formulation.

18. (Original) The method of claims 1, wherein said composition that is administered is a solid formulation.

19. (Original) The method of claim 1, wherein said composition that is administered is a solid formulation with an enteric coating.

20. (Original) The method of claim 1, wherein oral administration is via a nasogastric tube.

Claims 21-25 (Canceled)

26. (Currently amended) A method of treating bacteremia or sepsis comprising the step of supplementing the mucosal immune system in a subject by administering via an oral route an effective amount of a lactoferrin composition comprising at least 1% to at least 50% w/w of an N-terminal lactoferrin variant wherein the N-terminal lactoferrin variant has a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and wherein the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin.

27. (Currently amended) A method of enhancing a mucosal immune response in the gastrointestinal tract in a subject comprising the step of administering orally to said subject an effective amount of a lactoferrin composition comprising at least 1% to at least 50% w/w of an N-terminal lactoferrin variant, wherein the composition results in enhancement of the mucosal immune system wherein the N-terminal lactoferrin variant has a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and wherein the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin.

28. (Previously presented) The method of claim 27, wherein said lactoferrin composition stimulates interleukin-18 in the gastrointestinal tract.

29. (Original) The method of claim 28, wherein interleukin-18 stimulates the production or activity of immune cells.

30. (Original) The method of claim 28, wherein said lactoferrin composition reduces the production or activity of pro-inflammatory cytokines.

31. (Currently amended) A method of decreasing mortality of a subject having bacteremia comprising the step of administering orally to said subject an effective amount of a lactoferrin composition comprising at least 1% to at least 50% w/w of an N-terminal lactoferrin variant to attenuate the bacteremia to decrease mortality of said subject wherein the N-terminal lactoferrin variant has a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and wherein the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin.

32. (Currently amended) A method of treating a septic condition in a subject comprising the step of administering orally to said subject an effective amount of a lactoferrin composition comprising at least 1% to at least 50% w/w of an N-terminal lactoferrin variant to provide an improvement in the septic condition of said subject, wherein the improvement is selected from the group consisting of decreasing the levels of circulating bacteria, attenuating sepsis, attenuating septic shock, attenuating organ failure, decreasing morbidity

and decreasing mortality wherein the N-terminal lactoferrin variant has a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and wherein the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin.

Claims 33-37 (Canceled)

38. (Currently amended) A method of decreasing mortality of a subject having sepsis comprising the step of administering orally to said subject an effective amount of a lactoferrin composition comprising at least 1% to at least 50% w/w of an N-terminal lactoferrin variant to attenuate sepsis to decrease mortality of said subject wherein the N-terminal lactoferrin variant has a deletion, substitution, or combination thereof, of from 1 to 16 N-terminal amino acid residues and wherein the N-terminal lactoferrin variant retains the same biological function as full length lactoferrin.

39. (Original) The method of claim 38, wherein the amount of the lactoferrin composition reduces the levels of circulating cytokines.

40. (Original) The method of claim 39, wherein the cytokines are selected from the group consisting of IL-4, IL-6 and IL-10.

Claims 41-46 (Canceled)